

5th Grade Standards Correlated to Classes at McDowell Environmental Center



Aquatic Adventures

NGSS

5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

5-ESS2-2. Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

ACOS

SC.5.15. Use a model to represent how any two systems, specifically the atmosphere, biosphere, geosphere, and/or hydrosphere, interact and support life.

MSF

5.LS.3.B. Research and classify the organization of living things.

5.ES.4.D. Describe changes caused by humans on the environment and natural resources and cite evidence from research of ways to conserve natural resources in the United States, including Mississippi.

5.I.1. Develop and demonstrate an understanding of scientific inquiry using process skills.

TASS

GPS

S5L1. Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

S5CS5. Students will communicate scientific ideas and activities clearly.

S5CS6. Students will question scientific claims and arguments effectively.

S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.

S5CS8. Students will understand the important features of the process of scientific inquiry.

GSE

S5L2. Obtain, evaluate, and communicate information showing that some characteristics of organisms are inherited and other characteristics are acquired.

S5L1. Obtain, evaluate, and communicate information to group organisms using scientific classification procedures.

5th Grade Standards Correlations

NGSS=Next Generation Science Standards, ACOS=Alabama Course of Study, GPS=Georgia Performance Standards, MSF=Mississippi Science Framework, TASS=Tennessee Academic Standards for Science, GSE=Georgia Standards of Excellence

Rock Query

NGSS

5-PS1-3. Make observations and measurements to identify materials based on their properties.

5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

ACOS

SC.5.3. Examine matter through observations and measurements to identify materials.

SC.5.14. Use a model to represent how any two systems, specifically the atmosphere, biosphere, geosphere, and/or hydrosphere, interact and support life.

SC.5.16. Collect and organize scientific ideas that individuals and communities can use to protect Earth's natural resources and its environment.

MSF

1.P.2.E. Differentiate between the properties of light as reflection, refraction, and absorption. **F.** Describe physical properties of matter including mixtures and solutions.

5.ES.4.A. Categorize Earth's materials. Rocks, minerals, soils, water, atmospheric gases. Layers of the atmosphere, hydrosphere, and lithosphere.

5.ES.4.G. Conclude that the supply of many Earth resources is limited and critique a plan to extend the use of Earth's resources.

5.I.1. Develop and demonstrate an understanding of scientific inquiry using process skills.

TASS

GPS

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

S5CS5. Students will communicate scientific ideas and activities clearly.

S5CS6. Students will question scientific claims and arguments effectively.

S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.

S5CS8. Students will understand the important features of the process of scientific inquiry.

GSE

S5E1. Obtain, evaluate, and communicate information to identify surface features on Earth caused by constructive and/or destructive processes.

Down to Earth

NGSS

5-PS1-3. Make observations and measurements to identify materials based on their properties.

5-LS1-1. Support an argument that plants get the materials they need for growth chiefly from air and water.

5-ESS3-1. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.

ACOS

SC.5.3. Examine matter through observations and measurements to identify materials.

SC.5.8. Defend the position that plants obtain materials needed for growth primarily from air and water.

SC.5.16. Collect and organize scientific ideas that individuals and communities can use to protect Earth's natural resources and its environment.

MSF

1.P.2.E. Differentiate between the properties of light as reflection, refraction, and absorption. F. Describe physical properties of matter including mixtures and solutions.

5.LS.3.E. Give examples of how consumers and producers are related in food chains and food webs.

5.ES.4.G. Conclude that the supply of many Earth resources is limited and critique a plan to extend the use of Earth's resources.

5.I.1. Develop and demonstrate an understanding of scientific inquiry using process skills.

TASS

5.ESS1.7. Use evidence from the presence and location of fossils to determine the order in which rock strata were formed.

GPS

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

S5CS5. Students will communicate scientific ideas and activities clearly.

S5CS6. Students will question scientific claims and arguments effectively.

S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.

S5CS8. Students will understand the important features of the process of scientific inquiry.

GSE

Trust Swing

NGSS

5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.

ACOS

SC.5.6. Construct an explanation from evidence to illustrate that the gravitational force exerted by Earth on objects is directed downward toward the center of Earth.

MSF

1.P.2.D. Categorize examples of potential energy as gravitational, elastic, or chemical.

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TASS

5.PS2.3. Use evidence to support that the gravitational force exerted by Earth on objects is directed toward the Earth's center.

GPS

GSE

Forest Connections

NGSS

5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

5-LS1-1. Support an argument that plants get the materials they need for growth chiefly from air and water.

5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

5-ESS2-1. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

ACOS

SC.5.8. Defend the position that plants obtain materials needed for growth primarily from air and water.

SC.5.11. Create a model to illustrate the transfer of matter along producers, consumers, including scavengers and decomposers, and the environment.

SC.5.14. Use a model to represent how any two systems, specifically the atmosphere, biosphere, geosphere, and/or hydrosphere, interact and support life.

MSF

5.LS.3.E. Give examples of how consumers and producers are related in food chains and food webs.

5.LS.3.E. Give examples of how consumers and producers are related in food chains and food webs.

5.ES.4.A. Categorize Earth's materials. Rocks, minerals, soils, water, atmospheric gases. Layers of the atmosphere, hydrosphere, and lithosphere.

5.I.1. Develop and demonstrate an understanding of scientific inquiry using process skills.

TASS

GPS

S5L4. Students will relate how microorganisms benefit or harm larger organisms.

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

S5CS5. Students will communicate scientific ideas and activities clearly.

S5CS6. Students will question scientific claims and arguments effectively.

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S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.
S5CS8. Students will understand the important features of the process of scientific inquiry.

GSE

Meet a Tree

NGSS

5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

ACOS

SC.5.11. Create a model to illustrate the transfer of matter along producers, consumers, including scavengers and decomposers, and the environment.

MSF

5.LS.3.E. Give examples of how consumers and producers are related in food chains and food webs.

5.LS.3.B. Research and classify the organization of living things.

5.I.1. Develop and demonstrate an understanding of scientific inquiry using process skills.

TASS

5.LS3.1. Distinguish between inherited characteristics and those characteristics that result from a direct interaction with the environment.

GPS

S5L4. Students will relate how microorganisms benefit or harm larger organisms.

S5L1. Students will classify organisms into groups and relate how they determined the groups with how and why scientists use classification.

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

S5CS5. Students will communicate scientific ideas and activities clearly.

S5CS6. Students will question scientific claims and arguments effectively.

S5CS7. Students will be familiar with the character of scientific knowledge and how it is achieved.

S5CS8. Students will understand the important features of the process of scientific inquiry.

GSE

Invention Convention

NGSS

3-5-ETS1-2. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

3-5ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

MSF

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5.I.1. Develop and demonstrate an understanding of scientific inquiry using process skills.

GPS

S5CS1. Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

S5CS5. Students will communicate scientific ideas and activities clearly.

S5CS8. Students will understand the important features of the process of scientific inquiry.

GSE

Food For Thought

NGSS

5-PS3-1. Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.

5-LS1-1. Support an argument that plants get the materials they need for growth chiefly from air and water.

ACOS

SC.5.8. Defend the position that plants obtain materials needed for growth primarily from air and water.

MSF

5.LS.3.E. Give examples of how consumers and producers are related in food chains and food webs.

TASS

GPS

GSE

Other Day Classes with Flexible Lesson Plans Addressing a Variety of Standards

Authors and Explorers

Canoeing

Mysterious Medley

Nature Hike

Navigation

Survival Skills

Value of a Tree

Stream Studies* - recommended for advanced 5th grade classes in spring term only

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